

Amendments to the Claims

1-17. (Canceled)

18. (Currently amended) In a snowmobile having a body onto which at least one rider rides, said body being coupled to a frame supported by slide tracks, a system for maintaining a distance between said body and said slide tracks to provide optimal riding comfort for said rider, comprising:

at least one fluid actuated device operatively interposed between said body and said slide tracks;

at least one fluid containing means for storing fluid to be used for actuating said fluid actuated device;

conduit means connecting said fluid containing means to said fluid actuated device;
and

valve means interposed between said fluid containing means and said fluid actuated device, said valve means actuatable to effect a selective open path between said fluid containing means and said fluid actuated device so that said fluid actuated device can operate to move said body and said slide tracks relative to each other for effectuating said distance;

a processor; and

at least one sensor provided in the snowmobile positioned relative to said frame and said slide tracks to monitor the position of said body relative to a base line at said frame, said sensor providing monitored signals to said processor to at least display the monitored signal to a gauge on said snowmobile.

19. (Original) The system of claim 18, wherein said valve means is responsive to at least the weight of said rider supported by said body for moving said body and said slide tracks relative to each other to vary said distance separating said body and said slide tracks, thereby providing the optimal riding comfort for said rider.

20. (Original) The system of claim 18, wherein said fluid actuated device comprises a gas or air actuated cylinder; and

wherein said fluid containing means stores compressed air or gas for usage by said fluid actuated devices.

21. (Original) The system of claim 18, wherein said fluid actuated device comprises a hydraulic cylinder; and

wherein said fluid containing means stores hydraulic oil or other incompressible liquids for actuating said cylinder.

22. (Currently amended) The system of claim 18, further comprising:

~~sensor means positioned relative to said body for determining~~ wherein said sensor determines the forces acting on said slide tracks including at least the weight of said rider; and

~~processor means communicatively connected to said sensor means for receiving signals therefrom~~ wherein the monitored signals received by said processor from said sensor is representative of at least the forces acting on said slide tracks in reaction to the weight of said rider, said processor ~~means~~ further communicatively connected to said valve means so that, in receipt of the signals from said sensor ~~means~~, said processor ~~means~~ sends a command signal to said valve means to selectively provide fluid to said fluid actuated devices to effectuate said distance.

23. (Original) The system of claim 18, further comprising:

switch means situated on said body to be within easy reach of said rider that enables said rider to selectively actuate said fluid actuated device to adjust said distance.

24. (Currently amended) The system of claim 18, further comprising:

means an other sensor located on said snowmobile for sensing the weight of said rider, wherein upon sensing the weight, said other sensor providing a weight signal to said

processor so that said processor can utilize and using said sensed weight as a reference for providing fluid to said fluid actuated device to automatically adjust said distance.

25. (Original) The system of claim 18, wherein said snowmobile has at least one ski, said system further comprising:

at least one fluid actuated device connecting said ski to said body, said fluid actuated device being effective for stabilizing the movement of said ski.

26. (Original) The system of claim 18, further comprising:

at least two fluid actuated devices operatively interposed between said body and said slide tracks.

27-52. (Canceled)

53. (Currently amended) In a snowmobile having a body onto which at least one rider rides, said body being coupled to a frame supported by slide tracks, a method of maintaining a distance between said body and said slide tracks to provide optimal riding comfort for said rider, comprising the steps of:

interposing at least one fluid actuated device between said body and said slide tracks;

provisioning at least one fluid store means for storing fluid to be used for actuating said fluid actuated device;

connecting said fluid store means to said fluid actuated device; and

interposing valve means between said fluid store means and said fluid actuated device; ~~and~~

monitoring the position of said body relative to a base line at said frame;

providing monitored signals to a processor;

displaying the monitored signal to at least one gauge on said snowmobile; and

actuating said valve means based on the monitored signals to effect a selective open path between said fluid store means and said fluid actuated device so that said fluid

actuated device can operate to move said body and said slide tracks relative to each other for effectuating said distance.

54. (Original) The method of claim 53, further comprising the steps of:

sensing at least the weight of said rider; and

actuating said valve means in response to at least the weight of said rider for moving said body and said slide tracks relative to each other to vary said distance separating said body and said slide tracks.

55. (Currently amended) The method of claim 53, wherein said snowmobile has at least one ski, said method further comprising the step of:

connecting said ski to said body by at least one fluid actuated device for stabilizing the movement of said ski;

sensing the pressure the ski is subjected to and the types of movements to said ski mechanism, and

sending the sensed pressure and movements to said processor so that the pressure of said fluid actuated device is controlled in real time by said processor.

56. (Withdrawn) A snowmobile comprising:

a body onto which at least one rider rides;

a frame to which slide tracks are mounted;

a belt mounted about said slide tracks and driven by drive means to provide movement for said vehicle;

a drive disc coupled to said drive means;

a brake pad mounted relative to said drive disc for braking the motion of said drive means to stop the movement of said belt; and

an antilock braking system communicatively coupled to said brake pad and said drive means for controlling the braking action of said brake pad and to prevent the locking of said brake pad to said drive disc.

57. (Withdrawn) The snowmobile of claim 56, further comprising:

a suspension system including at least one fluid actuated device operatively connecting said frame to said body adjustable at any time for substantially insulating said vehicle body from forces acting on said frame when said vehicle is in movement to thereby effecting an optimal cushioned ride for said rider.

58. (New) The system of claim 25, further comprising:

a feedback circuit for sensing the pressure the ski is subjected to and the types of movements on the steering mechanism, and sending the sensed pressure and movements to said processor so that the pressure of said fluid actuated device is controlled in real time by said processor.